LISTING OF THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously presented) Method for manufacturing ceramic parts with a certain porosity by sintering using microwaves, the materials to be sintered being arranged in a vessel, said method comprising:

introducing, via said microwaves, sintering energy into the materials to be sintered via electromagnetic waves in the range of vacuum wavelengths between 5 cm – 20 cm in multimode having an electromagnetic power of up to one kilowatt, wherein, besides being built from primary materials for the structure of the vessel, the vessel is built from a secondary material which comprises at least one material selected from the group consisting of: non-metallic materials, para-magnetic materials, ferro-magnetic materials and antiferromagnetic materials.

2. (Previously presented) Method of claim 1, wherein said wavelength range of the electromagnetic waves is between 11-13 cm.

3. (Previously presented) Method of claim 1, wherein said ceramic parts have a porosity of between 0-50 percent by volume.

4. (Previously presented) Method of claim 3, wherein said porosity is between 10 – 30 % by volume, the porosity being controllable through the temperature pattern.

5. (Previously presented) Method of claim 1, wherein said ceramic parts are infiltrated with a glass material to produce the final strength.

6. (Previously presented) Method of claim 1, wherein said ceramic parts are sintered to a defined final density of at least 80% of the theoretical density of the respective material.

7. (Previously presented) Method of claim 1, wherein said ceramic parts are dental restorations.

8. (Previously presented) Method of claim 7, wherein said dental restorations are veneered using a glass material.

9. (Previously presented) Method of claim 1, wherein said material is selected from the group consisting of: Al_2O_3, Spinell, Ce- or Y-stabilized ZrO_2, and mixtures thereof.

10. (Previously presented) Method of manufacturing full ceramic dental restorations from dental ceramic masses with a certain porosity by sintering using microwaves, said ceramic masses that are to be sintered being arranged in a vessel, said method comprising:

introducing, via said microwaves, sintering energy into said ceramic masses to be sintered via electromagnetic waves in the range of vacuum wavelengths between 5 cm – 20 cm in multimode having an electromagnetic power of up to one kilowatt, wherein, besides being built from primary materials for the structure of the vessel, the vessel is built from a secondary material which comprises at least one material selected from the group consisting of: non-metallic materials, para-magnetic materials, ferro-magnetic materials and antiferromagnetic materials.

11-21. (Cancelled)

22. (Previously presented) Method for manufacturing ceramic parts with a certain porosity by sintering using microwaves, the materials to be sintered being arranged in a vessel, said method comprising:

assembling a bottom element, an intermediate element, and a top element to define a receiving portion, the bottom, intermediate, and top elements being formed from a primary material;

introducing a secondary material into an annular recess of the intermediate element so that the secondary material is surrounded by the primary material, the annular recess surrounding the receiving portion, wherein the secondary material comprises at least one material selected from the group consisting of: non-metallic materials, para-magnetic materials, ferro-magnetic materials and antiferromagnetic materials;

introducing the materials to be sintered into the receiving portion; and

introducing microwave sintering energy into the materials to be sintered via electromagnetic waves in the range of vacuum wavelengths between 5 cm – 20 cm in multimode having an electromagnetic power of up to one kilowatt.

23. (Previously presented) Method of claim 22, wherein introducing the secondary material into the annular recess comprises introducing a secondary material element into the annular recess.

24. (Previously presented) Method of claim 22, wherein said wavelength range of the electromagnetic waves is between 11-13 cm.

25. (Previously presented) Method of claim 22, wherein said ceramic parts have a porosity of between 0-50 percent by volume.

26. (Previously presented) Method of claim 25, wherein said porosity is between 10 – 30 % by volume.

27. (Previously presented) Method of claim 22, wherein said ceramic parts are infiltrated with a glass material to produce the final strength.

28. (Previously presented) Method of claim 22, wherein said ceramic parts are sintered to a defined final density of at least 80% of the theoretical density of the respective material.

29. (Previously presented) Method of claim 22, wherein said ceramic parts are dental restorations.

30. (Previously presented) Method of claim 29, wherein said dental restorations are veneered using a glass material.

31. (Previously presented) Method of claim 22, wherein said material is selected from the group consisting of: Al_2O_3, Spinell, Ce- or Y-stabilized ZrO_2, and mixtures thereof.

32. (New) Method of claim 1, wherein the second material is characterized by partial absorption of the electromagnetic waves and a partial transparency to the electromagnetic waves.

33. (New) Method of claim 10, wherein the second material is characterized by partial absorption of the electromagnetic waves and a partial transparency to the electromagnetic waves.